Mapping the Route of Leadership Education: Caution Ahead

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"Educational experts from the systems analyst school seek to impose
research-based techniques on teachers in the place of the knowledge of
teaching derived from experience, apprenticeship, and study of educational
purpose. Such context-stripped research-based knowledge cannot
substitute for professional knowledge."
— Joe L. Kincheloe[1]

One of the hardest things for a successful organization to do is question the assumptions on which its success is attributed. The US military reached its preeminence on the battlefield, in part, due to a highly systematic approach to training and leadership development. Much of the program planning and curriculum in our system of professional military training and education was developed through a systems analysis approach, best illustrated in the Army's use of detailed tasks, conditions, and standards. Systematic training models drive the design, resourcing, execution, and assessment phases of a variety of schools and courses in a multitude of settings and specialties. It is second nature for many in the military to default to these technically rational processes, not only for training in basic soldier skills, but for leader education as well. The personality types of our leaders combine with a planning culture that can result in approaches to leader development more applicable for the industrial age than the information age.

At the center of defense transformation is the issue of what will make 21st-century military operations successful. Everything is on the table, from force management, weapons platforms, institutional processes, man-

ning policies, and organizational culture, to educational philosophies and practices used in professional military education. It is in the spirit of engaging in and expanding the discourse on the important subject of leadership education that we wrote this article.

One ongoing debate relates to a "Joint Competencies Leader Development Framework" proposed by the Joint Forces Command (JFCOM) J9 Joint Experimentation Directorate.[2] The initiative is a commendable effort to improve joint education toward the goal of improved joint operations. When J9 developed the proposal, a number of service entities were already in the process of devising leader competency lists, including the Air Force, Army Research Institute, and Army Command and General Staff College. Contractors at Fort Leavenworth also were instrumental in developing a competency map that guided the redesign of Army intermediate-level education. Accordingly, competency mapping had to appear promising to JFCOM. Competency-based program planning is attractive to a military community that holds concrete, rational processes in high esteem.

Reviewing the J9 proposal required us to step back and review educational strategies for developing leaders, particularly strategic leaders who guide the course of the military profession. Senior service colleges are charged with educating many of the nation's future strategic leaders. The J9 initiative is an important one because it represents an effort to think seriously about elements of abstract knowledge that are characteristic of the warfighting profession and to ensure that such knowledge is passed to practicing members via an admittedly disparate system of schools and courses. This is no small task. The results of the proposal have implications for every school in the professional military education system involved in leadership development. At stake in this initiative is the process by which the joint community identifies areas for inclusion in the curricula of our service and joint schools and then holds them accountable via the program for the accreditation of joint education.

At the heart of any profession is a body of expertise and abstract knowledge that its members are expected to apply within its granted jurisdiction. Those who learn and employ that knowledge in unique contexts are rightly described as professionals; in them lies the heart and soul of the profes-

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sion. Abstract professional knowledge, however, can be frustratingly hard to define. It extends beyond discrete tasks to include the synthesis of experience and intuition. It involves elements of art as well as science. Transferring abstract knowledge through teaching has similar characteristics. Teaching in the professional military education system involves more than delivering content. Good teaching is an art form in its own right. A good teacher can overcome a poor curriculum, while a great curriculum will not substitute for a poor teacher. Industrial-age organizations seek routine and habit achieved through standardized procedures. Complex tasks are broken into simple steps that are assigned to organizational positions to ensure that employees are both interchangeable and easily replaced. Bureaucratic hierarchies tend to value quantifiable assessment of specific aspects of complex managerial tasks.

Also at stake is the issue of who drives this leadership development process, a process we believe is key to the future of the military profession. We must ask whether outsourcing the development of a list of competencies that then drives the curricula of professional military schools is the wisest course. It is appropriate to question just how much we should rely on individuals outside the profession to chart and transfer the military's professional knowledge.

As with most goals in complex systems, there are multiple ways of achieving them. There are aspects of the systems analysis approach to education that are useful. There is nothing inherently harmful in developing competency lists, provided they are kept general in nature and viewed with the appropriate level of circumspection. We are concerned, however, that this approach lacks the complex contextual and relational elements that combine to determine leadership effectiveness or failure. When carried to the extent of detailed crosswalks to learning objectives, competency mapping represents an over-engineered approach to leadership development and education that is more bureaucratic than professional. This article critically examines the control-oriented approach to leadership development exemplified in the use of list-based techniques such as competency mapping. We suggest an alternative approach that is more adaptive to the rapidly changing environment and more appropriate for the military profession.

Explanation of Competency Mapping

Competency maps take on a wide variety of forms. While there is no one correct way of depicting them, they can generally be described as a formal, top-down effort to identify, list, label, track, and measure competency descriptors. The competencies might be called knowledge areas, skills, attributes, attitudes, components, tasks, traits, or simply competencies. Once identified, numbered, and listed, they are usually broken down into subcomponents, which are also numbered, so they might be associated with the

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broader competency area or cluster of competencies. The mapping aspect comes into play when the competency areas are mapped to training and educational objectives and events, and then ultimately to desired leadership behaviors. Mapping models appear very comprehensive (or at least impressive due to their voluminous nature) due to the multiple linkages depicted in the map. They might be displayed in elaborate hierarchical diagrams or multiple foldouts or some other fashion designed by the administrators of the process. With their elaborate tracking mechanisms, the models also promise horizontal and vertical integration in the development of leadership competencies throughout organizational levels and educational institutions. Competency mapping is particularly appealing to analytically oriented decisionmakers.

Advocates for competency mapping assert that one can develop a metric to measure the relative success of an individual competency that will predict success in associated leadership behaviors. If the performance behaviors are successfully captured and the feedback metrics are established for the competencies on the list, then gaps in leader development can be detected by recording, monitoring, and remediating individual progress against the list. Advocates hail elaborate computer-based models of competency mapping, arguing that an instructor, superior, mentor, or individual can push a button and see the educational opportunities available to address any particular competency. Advocates refer to competency mapping as adaptive because the list and the educational experiences that complement the competencies can continually be revised.

Advocacy of competency mapping appears to be spreading. Its goal is to develop a blueprint, map, or matrix of desired skills, knowledge, attributes, and attitudes at various levels of the organization. The map is then used to channel recruiting, hiring, and training decisions. Competency mapping has gained a following in the human resources community and spawned a cottage industry of business consultants and vendors who profess expertise in its application. It is often advertised as a means to save time and resources in the hiring of new personnel and to document the occupational training needs of employees. While competency mapping is purported to be in the spirit of the information age, it is reminiscent of industrial-age concepts derived from Taylorism

and Fordism. Frederick Taylor, the early 20th-century father of "scientific management," spawned time and motion studies of work to construct the standardization of tasks. Henry Ford capitalized on Taylor's theories and created a workforce trained and organized around the standardization of worker tasks on the assembly line. But the education of strategic leaders is not an endeavor suited to an assembly-line approach.

Critique of the Mapping Approach to Leadership Education

At the heart of list-based approaches like competency mapping is an assumption that certain attributes such as motives, values, and skills can be identified and reproduced through training and education, resulting in effectively led organizations. The lineage of this approach lies in trait theories of leadership that coincided with Taylorism. Indeed, trait theory is one of the earliest frameworks for leadership study. Education scholars Joe F. Donaldson and Paul Jay Edelson have noted that "trait theory was developed in the first part of the twentieth century and took a psychological approach to specifying the personality traits of effective leaders. Although research has shown no relationship between individual traits and effectiveness, this approach still finds modern expression."[3]

The trait approach has largely been supplanted by more sophisticated frameworks, yet leader competency mapping is proof positive that despite its dubious foundation the approach endures. Noted leadership author and scholar Gary Yukl has observed:

Early leadership theories attributed managerial success to extraordinary abilities such as tireless energy, penetrating intuition, uncanny foresight, and irresistible persuasive powers. Hundreds of studies were conducted during the 1930s and 1940s to discover these elusive qualities, but this massive research effort failed to find any traits that would guarantee leadership success. One reason for the failure was a lack of attention to intervening variables in the causal chain that could explain how traits could affect a delayed outcome such as group performance or leader advancement.[4]

Peter Northouse, author of *Leadership: Theory and Practice* noted the resurgence of a comprehensive skills-based model of leadership characterized by a map for how to reach effective leadership in organizations.[5] He suggested that the identification of specific skills which can be enhanced by training has an intuitive appeal: "When leadership is framed as a set of skills, it becomes a process that people can study and practice to become better at their jobs."[6] This model provides a ready hook on which training and educational institutions can hang their curricula. It also results in an expansive list of desired skills. Northouse's criticism of this approach includes the observation that the

skills model of leadership has weak predictive value: "It does not explain specifically how variations in social judgment skills and problem-solving affect performance."[7] He also suggests that although the skills-based approach claims not to be a trait model, it includes individual attributes that look a great deal like traits.

When attempting to influence the large and dispersed system of professional military training and education institutions, there is a powerful tendency to seek solutions that are definitive, prescriptive, and complete. Such solutions seek integration and promise measurement of performance in the best tradition of systems analysis. It is understandable why the military's proposed approach to leadership includes competency mapping. It reveals a penchant for an unambiguous list that is both definable and measurable. It suggests that the paradigm of technical rationality—with its emphasis on logical reasoning, science, and empirical method—is in operation. It seeks prediction, standards, and control of the training and educational process.

The act of leadership is also an exercise of moral reasoning. In their book *Unmasking Administrative Evil,* Guy Adams and Danny Balfour caution against elevating the scientific-analytical mindset above all other forms of rationality. While the rise of "technical rationality led inexorably to specialized, expert knowledge, the very life blood of the professional," it also "spawned unintended consequences in the areas of morals and ethics as the science-based technical rationality undermined normative judgments and relegated ethical considerations to afterthoughts."[8] Distinguished scholar Ronald Heifetz developed a definition of leadership that takes values into account. He maintains that we should look at leadership as more than a means to organizational effectiveness. Effectiveness means reaching achievable decisions that implement the goals of the organization. "This definition has the benefit of being generally applicable, but it provides no real guide to determine the nature or formation of those goals."[9] Heifetz went on to say that values such as "liberty, equality, human welfare, justice, and community" are inculcated with good leaders.[10] We affirm the necessity for infusion of these values into the leader and from the leader into the organization, while questioning whether this can be achieved through competency mapping.

An overly detailed, list-based approach could result in professional military education that is contrary to that which is actually needed. It could restrict what is taught to only that which is on the list. It could become self-perpetuating, not subject to continuous review, and therefore become detached from what is needed in the field. Such lists suggest skills that can be mastered, anathema to the concept of lifelong learning. Finally, this form of competency mapping encourages normative stratification between levels of professional military education rather than the desired integration. R. L.

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Shaw and Dennis Perkins provide an important observation: "The ideals of worker empowerment, reflection, process, and collaboration often conflict with organizational norms of authoritarian management, bias towards activity and measurable performance, and competitive 'competency traps.'"[11]

A competency trap "reflects the ways in which improving capabilities with one rule, technology, strategy, or practice interferes with changing that rule, technology, strategy or practice to another that is potentially superior."[12] Defense institutions will eventually make improvements to the list, but it would be unfortunate if those improvements were limited to the scope and methods of competency mapping. Improvements to the competency list will appear to signal a series of "successes," thereby reinforcing its use and reducing incentives to search for a better way to develop leaders. Hence, leadership development will be caught in a competency trap created by its own learning process. In reality, the adaptation really needed is ignored because the existing paradigm has been institutionalized to the point of being culturally embedded.[13]

The prevention of competency traps comes from adopting principles associated with organizational learning. Competency traps can be explained as "single-loop learning," where the leaders and the organization observe the consequences of action (e.g., experimenting with a leadership competency map) and then ask for feedback to gain knowledge as to its effectiveness (e.g., whether it helped in developing leaders). The organization then adjusts its subsequent action to avoid similar mistakes (or deviations from what an ideal list or map should do) in the future. According to organization behaviorist Chris Argyris of Harvard University, single-loop learning appears to solve problems, but ignores the issue as to why the overall solution was sought in the first place (e.g., What problem were we trying to solve when we decided that leadership competency maps would solve it?).[14] From this perspective, competency mapping seems to be a ready-made solution that gives false clarity to the otherwise complex and often ambiguous nature of leadership.

"Double-loop learning," on the other hand, requires a higher-order form of awareness. It bypasses the single feedback loop of the top-down

approach. Double-loop learning requires a multiple lens strategy that facilitates "knowledge of several different perspectives and forces the organization to clarify differences in assumptions across frameworks, rather than implicitly assuming a given set."[15] In our current discourse, viewing leader development from a variety of perspectives would help the continuously transforming military sustain a double-loop learning posture that is always ready for more significant adaptation than a single perspective would allow.[16]

We should be very circumspect of our ability to identify an adequate, much less complete, list of competencies applicable to a rapidly changing operational environment. As the competencies are mapped to skills, then to behaviors, and to intermediate, enabling, and terminal learning objectives in the training and education base, they could drive us to a place we do not want to be. The paradox is that more is actually less. The more we try to describe and prescribe a list of defined, specific competencies, the more we lead away from the agile, adaptive, self-aware leader we want. The danger of prescriptive lists is that they create the impression that success can be assured by mastering specific competencies. Our colleague, Dr. Leonard Wong, is correct when he says:

> In the military's zeal to address all aspects of systems level leadership, the lists of strategic leader competencies are actually *too* comprehensive. At the individual level, it is difficult to assess one's leadership ability when the lists suggest that a strategic leader must be, know, and do just about everything. At the institutional level, the lack of parsimony makes it difficult to focus an institution's attention and resources on leader development when such a broad array of competencies is advocated.[17]

Even the progenitor of the skills-based approach, noted social psychologist Robert L. Katz, limited the list to three personal skills: technical, human, and conceptual. A military study in the early 1990s developed a model of leadership comprising five components: competencies, individual attributes, leadership outcomes, career experiences, and environmental influences. Northouse notes that problem-solving, social judgment, and knowledge are at the heart of the skills model of leadership.[18] Such broad and ill-defined categories are not satisfying to bureaucracies seeking to eliminate ambiguity and achieve compliance via standardization and routinization. Yet, high-performing professions thrive within this kind of ambiguity because it allows for creativity and adaptation. Faculty members in the system of professional military education charged with collecting and passing abstract knowledge of the profession welcome such ambiguity as an opportunity for creativity and flexibility.

Another concern with list-based approaches like competency mapping relates to a known deficiency of trait listing. Is there any positive attribute you would want to leave off the list? What positive attributes do you *not* want leaders to have? Won't the list change as the times change? Of course we want military leaders to have all the virtues of the Boy Scout: be trustworthy, loyal, helpful, and the rest. We also want them to be compassionate in some situations and dealers of death and destruction in others. We want leaders to be decisive, yet also contemplative. Such ambiguities and paradoxes are rarely captured in trait lists. Nobel laureate Herbert Simon observed that when you can identify a principle with an equally plausible and acceptable contradictory principle without a guide to indicate which one is proper to apply in a given situation, you are dealing with proverbs.[19] Proverbs almost always occur in mutually contradictive pairs and are ideal for rationalizing action that has already taken place. As Simon noted, of course "you should look before you leap," but it is also true that "he who hesitates is lost." Left unstated is the contextual information that helps discriminate when it is appropriate to hesitate and when one should leap. Proverbs are not a basis on which to base leadership development.

Recently, Anna Simons of the Naval Postgraduate School briefed the results of a Department of Defense summer study titled "The Military Officer of 2030." That study group wisely determined that outside of a short list of universal beneficial leadership traits (e.g., responsible leaders of good character), we simply do not know the specifics of the kind of leader we will need in 30 years. It is unwise to attempt to predict the specific traits that will be required, and if we had the temerity to lock onto such a list, we could do the nation great harm if we were wrong. According to the study group, the correct organizational response under such uncertain conditions is to build in as much variation in skills and attributes as tolerable. The idea behind this approach is that with variation you likely will have some in the inventory with the skills needed at any critical point in time, and this gives the organization a population with which to adjust. If you accept the conclusion of the study group, we might ask whether competency mapping is a legitimate means to achieve or inhibit variation.

Our view of leadership is changing as our image of organizations changes. In the words of a colleague, when you lead yesterday's military, you fight yesterday's wars.[20] We are concerned that detailed leader competency maps composed of extensive databases and matrices rely on traditional notions of leadership appropriate for bureaucratic hierarchies and fail to capture emerging leadership concepts suitable to a military viewed as a complex adaptive system. We recognize that leadership in complex adaptive systems relies on relationship-building over role-defining, loose coupling over stan-

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dardization, learning over knowing, self-synchronization over command and control, and emergent thinking over planning based on estimates.[21]

We have noticed among War College students, who eventually constitute the cadre of senior Army leaders, a predominant personality type that has a penchant for details, specifics, early closure, and structure.[22] In our profession there is a clear preference for objective, concrete, and pragmatic solutions.[23] We should not be surprised then that leadership competency mapping, essentially an engineering approach, appeals to our community. It is highly rational and neat. You can easily trace up and down the matrix from competencies to skills and behaviors and back again, and therein lies a problem: it is too neat.

We might well be better served by stating that what we really need are leaders who are adept at learning almost anything very quickly, or skilled at recognizing patterns and converting abstract knowledge to action appropriate for a given situation. Leaders should be values champions for organizations and must be attuned to issues of climate and culture. We also need leaders who can communicate effectively to a wide range of audiences. They need to inspire soldiers and also be able to address the American public and the international community through the unblinking eye of the television camera. We must focus on how to think and not what to think, but these fuzzy concepts do not sell well in military culture.

As stated earlier, leadership and leader development are both art and science. The eminent leadership scholar Bernard Bass cautions against focusing solely on quantitative approaches in leadership research and makes an important observation about the nature of leadership in general:

> Often, qualitative research can deal better with the art and craft of leadership than can the more objective quantitative analysis. There is much in leadership that is difficult or impossible to put into a test tube. Nevertheless, there is much regularity in this art that can be made understandable by detecting and describing the patterns that appear.[24]

We are concerned that competency mapping is a pseudo-science that has similarities to the test-tube approach that Bass counsels against. We also

must remember that most of our professional military education process is oriented on adult learners. Education scholar Raymond Noe observed that a great deal of contemporary educational theory and practice is oriented to children and youth, where the instructor makes decisions about learning content and the students are passive receptors with few experiences to contribute.[25] Adults have a need to be self-directed, are motivated when they understand the need for such learning, and prefer a work-related and problem-solving orientation.[26] With limited time for education in our system of schools and courses, we should ensure that extensive top-down competency lists do not fill the curriculum to the extent that they drive out self-directed and other learning opportunities.

Even though well-defined competency maps initially seem innovative, we risk the inevitable "new idea lifecycle" problem that occurs when the list becomes tied with bureaucratic red tape. While the map could be updated periodically with fresh interpretations of events and feedback on current leadership and organizational shortcomings, we expect the inevitable emergence of an institutionalized process that could inhibit necessary changes. That is, we fear the competency mapping process will take on a life of its own, at the expense of opportunity lost for truly improving joint military education, as discussed below.

An Alternative Collaborative
Leadership Development Framework

There are alternative paradigms (including that of the interpretivist) which emphasize the more humanist themes in use by the organization, the underlying cultural values and beliefs in operation, and the relationship between symbolism and action. Adherents to this perspective are less concerned with identifying specific leadership variables leading to effectiveness and efficiency and note that all social science measurement is fallible, if not suspect. Given the existence of more subjective perspectives, we suggest that no single epistemological approach be privileged. We advocate the use of a double-loop learning approach and the application of multiple perspectives to leadership study and curriculum development.

The effort currently being invested into detailed competency lists and maps would be better placed in several specific directions: (1) improving the means by which we assess the needs of the joint profession and specifically the means by which we identify joint warfighting competencies requiring improvement; (2) providing information gained from that assessment to those responsible for joint training and education; (3) facilitating a network by which the myriad institutions involved in professional military

education can collaborate, exchange information, and share professional expertise; and (4) revising leadership development frameworks to include multiple perspectives.

In the first three of these recommendations lies an alternative model for curriculum development, while the fourth is an outcome. We caution against collecting an inexhaustible and dubious list of traits and skills of the ideal joint leader and then mandating it to the system of professional military education. Instead, we should take careful stock of our current state against the backdrop of the contemporary operational environment. By examining the current state against near-term needs, the gap between the existing and the desired can be determined. The desire to narrow the gap can then drive the system of professional military education.

We are confident the institutions that make up the system of professional military education are capable of adjusting to address emerging needs. The process can be speeded by a vibrant network that encompasses the various schools and courses in the system. In the case of our own institution, the US Army War College conducts a variety of surveys of stakeholders and graduates, and reviews many reports and studies, as part of the curriculum development process. However, there is no comprehensive means to identify joint leadership development needs that extend across institutional boundaries. There is no shortage of good ideas about where the college should focus its efforts, but it is not always clear that those ideas relate to the real needs across the field. An alternative curriculum development approach that would do this for the joint community can be modeled as in Figure 1.
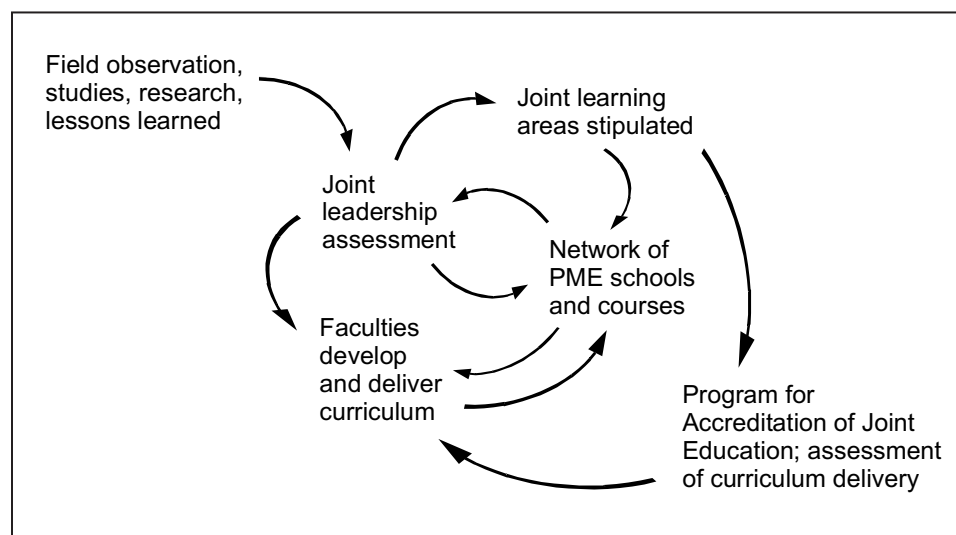

Figure 1. Proposed Adaptive Model of Curriculum Development.

We should not underestimate the scope of an endeavor that would result in creation and dissemination of the joint leadership assessment. What we suggest is a comprehensive assessment of the state of joint leadership using the best tools and minds available for the effort. Such collaborative assessments are expensive and manpower-intensive, so much so that they are not often replicated on a frequent basis. In order to remain relevant to a rapidly changing environment, we recommend that the assessment be conducted on an almost continuous basis. Optimally the assessment would coincide with the annual curriculum development processes of the institutions engaged in joint professional military education. With visibility of the assessment results, the faculty could begin to address the issues as they develop their approach to the next academic year.

The joint warfighting leadership assessment results would provide a substantive basis for continual reframing of professional military education. As an example, if it were determined that officers of a particular service have difficulty reacting to unplanned events and developing creative solutions, then curricular emphasis could be shifted from operational planning to adaptability and creativity. If senior leaders are perceived to lack media skills, then additional public speaking and media opportunities could be arranged in the appropriate schools and courses. Such modifications need not necessitate wholesale institutional change and they need not await the revision of a competencies list. Changes conducted on a continual basis can result in transformative shifts over time. This process encourages action at the lowest level to adjust to emerging needs. Such an active and continual process makes a competency list outdated if not superfluous upon publication.

A process of continual examination and change is preferable to a prescribed list of tasks that takes years to develop. Under the existing process that relies on an entity called the Military Education Coordinating Council, it can literally take years to change the joint learning areas mandated in Joint Chiefs of Staff Instruction 1800.01, the Officer Professional Military Education Policy. We note that the current list of joint learning areas includes no emphasis on the subject of leadership. The process for accreditation of joint education that is used to "grade the paper" of the various schools involved in joint military education includes an on-site review conducted every five years. Despite the long timelines involved in this process, we do not recommend its abolishment. Instead we suggest that it be supplemented with a timely joint leader assessment which the faculty can use as a basis for lesson planning. The question for the accreditation team then would be less dependent on whether the school addressed the items on the list, and more on whether they adapted their curriculum to address the items identified in the annual joint leader assessment.

We further recommend establishment of a network so those involved in professional military education can collaborate, exchange information, and share professional expertise across institutional boundaries. This could be accomplished through symposia, conferences, communities of practice, faculty exchange programs, and faculty development initiatives. When these events and resources are targeted to addressing areas for leadership improvement, the responsiveness of the educational system will dramatically increase. Imagine giving students at one senior service college the opportunity to enroll in electives taught at another, or broadcasting an address by the Secretary of Defense held at one college to the others. Outside of some notable service-sponsored initiatives such as the annual Teaching Grand Strategy Conference,[27] there are few mechanisms for sharing pedagogical techniques and resources among faculty members. There are significant advantages to a networked approach to leadership education. Our proposal would lead to an agile, flexible system of professional military education that could adapt to emerging needs and facilitate exchanges of ideas through dialogue.

Conclusion

Some aspects of list-based approaches exemplified by leader competency mapping are appealing, and there are strong cultural drivers and favored paradigms that help explain their dominant role as a tool for curriculum development. However, we assert that the approach contains fundamental flaws to the extent that it should not be relied upon as the preferred means of driving leadership education, especially that of strategic leaders. In "Rethinking Leadership Competencies," Jay Conger and Douglas Ready advise us to "become far more sensitive to their shortcomings."[28] They continue: "They are not flawless tools. Their tendency to become complicated rather than simplified, to portray ideals of leadership rather than realities, and to focus on today's rather than tomorrow's competencies all seriously work to undermine their benefits."[29]

We recommend instead an organizational learning-based process enabled by vastly expanded assessment and educational network components. Our recommended framework uses context-relevant study to justify continuous curriculum adjustment facilitated by a network of the various elements of the professional military education system. We further advocate using this network to improve leadership education and curriculum development. A networked approach to joint leadership development can lead to multiple perspectives of leadership more appropriate to a rapidly changing environment and one more worthy of the military profession.

NOTES

1. Joe L. Kincheloe, *Teachers as Researchers: Qualitative Inquiry as a Path to Empowerment* (New York: Falmer Press, 1991), p. 77.

2. Draft US Army HR System Project Plan, Fort Leavenworth, Kans., 21 January 2004.

3. Joe F. Donaldson and Paul Jay Edelson, "From Functionalism to Postmodernism in Adult Education Leadership," in *Handbook of Adult and Continuing Education*, ed. Arthur L. Wilson and Elisabeth R. Hayes (San Francisco: Jossey-Bass, 2000), p. 193.

4. Gary Yukl, *Leadership in Organization* (5th ed.; Upper Saddle River, N.J.: Prentice Hall, 2002).

5. Peter G. Northouse, *Leadership Theory and Practice* (Thousand Oaks, Calif.: Sage, 2004), pp. 35-52.

6. Ibid., p. 50.

7. Ibid., p. 51.

8. Guy B. Adams and Danny L. Balfour, *Unmasking Administrative Evil* (Armonk, N.Y.: M. E. Sharpe, 2004), pp. 31-36.

9. Ronald A. Heifetz, *Leadership Without Easy Answers* (Cambridge, Mass.: Harvard Univ. Press, 1994), pp. 21-22.

10. Ibid.

11. R. L. Shaw and Dennis N. T. Perkins, in Tara J. Fenwick, "Putting Meaning into Workplace Learning," in *Handbook of Adult and Continuing Education*, ed. Arthur L. Wilson and Elisabeth R. Hayes (San Francisco: Jossey-Bass, 2000), p. 296.

12. James G. March, *A Primer on Decision Making, How Decisions Happen* (New York: The Free Press, 1994), pp. 96-97.

13. Institutional theorists call this "sedimentation" and portray this as the most embedded form of institutionalization. Sedimentation is based on "the historical continuity" of rules, structure, "and especially on its survival across generations of organizational members." From Pamela S. Tolbert and Lynne G. Zucker, "The Institutionalization of Institutional Theory," in *Studying Organization: Theory and Method*, ed. Stewart R. Clegg and Cynthia Hardy (rpt.; London: Sage Publications, 1999), p. 178.

14. Chris Argyris, *Strategy, Change, and Defensive Routine* (Marshfield, Mass.: Pitman, 1985).

15. Paul A. Sabatier, *Theories of the Policy Process: Theoretical Lenses on Public Policy* (Boulder, Colo.: Westview Press, 1999), p. 6.

16. For example, see Christopher R. Paparone and James A. Crupi, "Insights for the Emerging Strategic Leader," unpublished paper, February 2004. The authors present leadership from three epistemological perspectives: modern, symbolic, and postmodern.

17. Leonard Wong, Paul Bliese, and Dennis McGurk, "Military Leadership: A Context Specific Review" *Leadership Quarterly*, forthcoming, p. 21 (emphasis in original).

18. Northouse, p. 40.

19. Herbert Simon, "The Proverbs of Administration," originally published in 1947, reprinted in Jay M. Shafritz and Albert C. Hyde, eds., *Classics of Public Administration* (4th ed.; Fort Worth, Tex.: Harcourt Brace, 1997), pp. 127-41.

20. Personal communication with Chaplain (Colonel) Winfield Buzby, 26 December 2004, Carlisle, Pa.

21. Christopher R. Paparone, Ruth A. Anderson, and Reuben R. McDaniel, Jr., "The United States Military: Where Professionalism Meets Complexity Science," *Military Review*, forthcoming.

22. For additional information see Otto Kroeger and Janet M. Thuesen, *Type Talk: The 16 Personality Types that Determine How We Live, Love, and Work* (New York: Dell Publishing Group, 1988); and Kroeger & Thuesen, *Type Talk at Work: How the 16 Personality Types Determine Your Success on the Job* (New York: Dell, 2002).

23. The differences we refer to are differences in personality preferences as measured by the Myers Briggs Type Indicator (MBTI). See Isabel B. Myers et al., *MBTI Manual: A Guide to the Development and Use of the Myers-Briggs Type Indicator* (3d ed.; Palo Alto, Calif.: Consulting Psychologists Press, 1998).

24. Barnard M. Bass, *Bass & Stogdill's Handbook of Leadership: Theory, Research, & Managerial Applications* (3d ed.; New York: Free Press, 1990), p. 887.

25. Raymond A. Noe, *Employee Training and Development* (Boston: McGraw-Hill, 2002), pp. 115-16.

26. Ibid., p. 116.

27. The Teaching Grand Strategy Conference is an annual cooperative event engaging a number of institutions including professional military schools and civil universities. It is oriented to those involved in strategic studies and provides a venue for interested students and faculty members to gather to discuss teaching methods and developments in the field.

28. Jay A. Conger and Douglas A. Ready, "Rethinking Leadership Competencies," *Leader to Leader*, 32 (Spring 2004), 47.

29. Ibid.